Digital Library Consortia with Reference to UGC-Infonet:
A Need of the Hour in Digital World

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Abstract

ICT is playing a major role in the all round development of society. Recent developments in the technologies have brought changes in the modes and methods of information, storage, retrieval and transmission. The Internet and web technology has open new dimension to the information systems. Internet, www, web 2.0 etc. has brought a major revolution on the library and information centres also to have access to different information sources and disseminate to the users in the era of information explosion. The paper mainly discusses about the importance of UGC-Infonet Digital Library Consortia for the libraries in the digital world

Keywords: Library consortia, E-journals, UGC-Infonet, INFLIBNET, INDEST.

1.   Introduction

Today consortium has become a buzzword for the libraries of higher educational institutions of the country and the credit goes to the successful functioning of UGC-Infonet and INDEST Consortium. The exact date when first of all the library consortium was introduced is not known but the concept of a consortium in the form of partnership or association has long been an ideology of librarianship (Nfila and Darkp-Ampem: 2002). There is sufficient published literature on the topic, which indicates that the concept is not new, and it refers to Co-operation, coordination and collaboration between, and amongst, libraries for the purpose of sharing information resources (Kopp: 1998). However the usage of the word became popular in 1980s onwards in general and since 2001 in Assam in particular mainly due to the following factors:

 ◆ Increase in the output in publication or the information explosion made is practically impossible for any library to fulfill the requirements of its clientele alone.

 ◆ Budget cut has become a universal trend and the unjustified increase in the cost of publication mainly scientific periodicals made the situation worst.

 ◆ Development of ICT made the transfer of information digitally possible.

 ◆ More and more information products became available digitally specially through Internet.

 ◆ Increasing demand for service from customers together with the need to improve inter library loan services and library collection forced the libraries to form such consortia.

2. Origin of Consortia

According to Kopp (1998) Melvin Dewey wrote about library cooperation in an issue of the library journal in 1886 and 1887 E. A. Mac presented his views on cooperation vs. competition in the same journal in 1888. ALA has formed a cooperation committee whose report was

published in ALA Bulletin in 1880s. During a symposium organized by ALA on the tropic "the library of tomorrow" in 1939, R. D. Downs presented a futuristic view of library cooperation in his paper "one for all"; a historical sketch of library cooperation 1930-1970. During 1970 the US office of Education commissioned the System Development Corporation (SDC) to carry out a nationwide study of the academic library consortia to develop a fund of descriptive and prospective information about the activities of academic library consortia and provide guidance of libraries that were forming or planning to form consortia.

3.   Why Consortia

According to SDC report the main reason for the formation of the consortia was perhaps the thinking that consortial approach offers an attractive solution to many outstanding problems of the participating libraries. With the progress in library automation, use of computers in bibliographic processing and database searching gained boost to reduce sharing and consortia formation.

Potter has identified two main reasons for the libraries for formation of consortium. The sharing of existing physical resources is the main reason and the purpose of identifying and addressing the common needs arising from developments in information technology as other. The growing importance of Internet and www, web 2.0 and possibility of offering a variety of electronic resources across the Internet is also a major factor in the formation of consortia. Specially the digital library consortia have came up due to the increasing awareness that the electronic resources are going to play more and more important role, which are summarized below –

  ◆ an interest in cooperative projects that might benefit all students and faculty of participating libraries.

  ◆ Providing enhanced library services with an emphasis on access to new electronic resources, bibliographic databases and services offered through Internet, www and web 2.0.

  ◆ Controlling building costs by providing regional storage facilities.

  ◆ Expending inter library borrowing which has evolved into providing as many electronic resources as possible at the lowest cost to consortia members

  ◆ To endure that faculty and students across all consortia members have equal access to electronic resources.

  ◆ Better sharing of existing resources.

Fig.: Different aspects of Library Consortium

4.   Current Scenario

During last couple of decades the formation of library consortia has shown steady growth mainly due to the developments in electronic communications. Consortia are no more restricted to the developed countries. Some of the leading consortia of the world are Ohio-Link (a consortium of 84 Ohio Universities, Colleges, Community Colleges and State Library of Ohio); TexShare (a consortium of 700 Texas academic, public and medical libraries; VLVA (Virtual Library of Virginia, a consortium of academic libraries in Virginia); IDAL (The Illinois Digital Academic Library); ARL (Association of Research Libraries); etc. The list is very long and cannot be shown here. The above library consortia are in hundred in the United States and it is not possible to describe them here (Singh: 2005).

Besides the United States a number of efforts in the formation of library consortia are being made throughout the world. In Brazil, Electronic library for Scientific Journals has come up for the universities and research institute in Sao Paulo through resource sharing and cooperation. HEAL-Link is a consortium of all academic and most research libraries in Greece. CALIS (China Academic Libraries Information System) is the biggest consortium in Asia. It came into existence in 1998. The major breakthrough and recognition in consortia approach came in the form of establishment of a Consortium of Consortia in mid 1990s. The name was later on changed to International Coalition of Library Consortia (ICOLC) (Singh: 2005).

5.   Indian Scene

Many efforts have taken place in the country for formation of library networks mainly due to the radical changes in the functioning of the libraries. The fact that financial crunch in these libraries forced them to find out some sort of cooperation. As a result formal library networks came into

existence, such as CALIBNET in 1986, DELNET in 1988, MALIBNET, etc. Establishment of INFLIBNET by UGC in 1988 gave a real boost to library automation activities in the country. Many libraries in India came together voluntarily for resource sharing and the most prominent among them was the consortium of Astronomy libraries in India. The participating libraries were Indian Institute of Astrophysics Library, Inter-University Centre for Astronomy and Astrophysics Library, National Centre for Radio Astrophysics Library, Nizamia Observatory Library, Physical Research Laboratory Library, Raman Research Institute Library, Tata Institute of Fundamental Research Library and Uttar Pradesh State Observatory Library.

Even after two decades of cooperative efforts for resource sharing among the libraries in India, there is not even a single successful programme that could be used as a point of reference to replicate in other libraries. The main factors that affected these kinds of efforts were more human and attitudinal than technological or economical. However, things are changing and the information environment is more conducive today. The advent of Internet have provided the tools to tackle the problems faced earlier mainly the physical movement of information resource which no longer is required. As a result successful consortium like INDEST and UGC Infonet: E-journal consortia have come up.

5.1   FORSA Consortium

The Indian Astrophysics Consortium called Forum for Resource Sharing in Astronomy (FORSA) is a typical example of homogenous group of members wherein the libraries have common area of interest and establishing the consortium is slightly easier than in heterogeneous type of members. The FORSA consortium consists of five members who joined the consortium for negotiating licensing for astronomy journals and identified a subscription agent as a supplier of journals. Under the consortium Nature journal was also subscribed by six libraries those committed to share the license fee to access the Nature electronically (Thamaraiselvi: 2005).

5.2   CSIR Consortium

The Council of Scientific and Industrial Research (CSIR) in India has 40 scientific laboratories involved in basic and applied research in various disciplines. Many of the laboratories have well equipped libraries, and some of them act as the main information centres in different subjects functioning as consultant libraries at the national level. Access to electronic journals through the use of state-of-the art technology is possible in many of the libraries belonging to these laboratories. Each of the laboratories have a well established library documentation centre that is also backed up with strategic information support from the National Institute of Science Communication and Information Resource (NISCAIR), a constituent establishment of CSIR formed with the merger of INSDOC and NISCOM. (Thamaraiselvi: 2005).

As a first step, in recent past NISCAIR on behalf of CSIR has entered into an agreement with Elsevier Science to access its odd 1,500 e-journals and further intends to strengthen its information resource base by subscribing e-access of more and more journals published globally. CSIR consortium extended its access by creating appropriate agreements on consortium basis with the other providers of E-journals.

5.3   INDEST Consortium

It is one of the successful examples of consortia formation in India. It was conceived as a strategic cooperation called the Indian National Digital Library in Engineering Science and Technology (INDEST) based on the five project proposals submitted to three major ministries of the Govt. of India, namely the Ministry of Human Resource Development (MHRD), the Ministry of Information Technology (MIT) and the Department of Biotechnology**.** INDEST is a fully functional consortium since 2003 and the funds for its operation are being provided by the MHRD. INDEST is a three level structure. The level 1 consists of seven Indian Institute of Technology and Indian Institute of Science Bangalore. The level 2 comprised of the National Institutes of Technology and other Institutes centrally funded by the MHRD. In level 3 are the individual libraries. At present one member at level 3, for most information INDEST website http://indest.iitd.ac.in   may be visited. Some of the full text as well as bibliographic databases available to member libraries under INDEST is given below (Access right may differ depending on the level of the member library).

Full text databases are Elsevier's Science Direct, ACM Digital Library, IEL Online, Springer journals, Emerald complete, ABI/Inform, Ebscohost, ASCE journals, ASME journals, Nature online, etc. Chemical Abstract Service, MathScinet, Inspec, Compendex, etc provide bibliographic databases only.

5.4   UGC-INFONET E-Journal Consortium

The UGC-Infonet is an ambitious program of the UGC to interlink all the universities in the country with cutting edge technology. This consortium has been the joint effort of UGC, India and the ERNET India, New Delhi under Ministry of Information Technology. The executing agency of this consortium is the INFLIBNET Centre located at Ahmedabad. Under this programme it is proposed to use ICT and Internet to transform learning environment from a mono-dimensional one to a multi-dimensional one. UGC-Infonet has become a boon to a higher education system in several ways. And in the long run, each university will become a hub for the colleges affiliated to them. The INFLIBNET centre has been able to realize one of its objectives by setting up a major communication network of universities through UGC-Infonet. It has successfully interlinked 149 universities. It has become a vehicle for distance learning to facilitate spread of quality education all over the country. It also acts as a tool to disseminate education materials and journals to the remotest of areas. It has become widely used resources for research scholars for having the most up-to-date and reliable information. It has an intranet for university library automation. It also establishes a channel for globalization of education

and facilitates the universities in marketing their services and developments. The member libraries will have access to the e-resources being made available under this programme. The infrastructure provided through UGC-Infonet is a minimum bandwidth of 256 kbps to 2Mbps. At present the following resources are available to UGC users (http://www.inflibnet.ac.in)

Bibliographic databases are Chemical Abstract Service, Biological Abstract; Royal Society of Chemistry consists of Analytical Abstracts, Catalysts & Catalysed Reactions, Chemical Hazards in Industry, Laboratory Hazards Bulletin, Methods in Organic Synthesis, Natural Product Update. Full Text databases are American Chemical Society, Royal Society of Chemistry, American Physical, Institute of Physics, American Institute of Physics, Cambridge University Press, Project Muse, J-STOR, Kluwer Journals, Springer Journals, Emerald, Nature, Science Online, Encyclopaedia Britannica (National Site Licensing), Elsevier Science, etc. Portals are Ingenta- Gateway Portal and J-Gate Gateway Portal.

5.4.1 Salient Features of UGC-Infonet

The following are some of the most important features of UGC-Infonet:

- ◆ Scaleable Architecture to grow nation-wide terrestrial backbone using fiber optic links.
- ◆ Integrated satellite WAN supporting broadband and SCPC technology.
- ◆ Comprehensive Network Management systems overall monitoring of the network.
- ◆ Linkage with other academic and research networks all over the world.
- ◆ Security for data and virus protection using firewalls and intrusion detection systems.
- ◆ Dedicated Data Centre for Web hosting, e-journals and Mail Boxes.
- ◆ Broadband Multimedia and Video Channels for Distance Learning.

5.4.2 UGC-Infonet Digital Library Consortium

To promote higher educational system, its standard quality research and bridging the digital divide amongst Indian Universities, INFLIBNET has initiated UGC-Infonet Digital Library Consortium under UGC in the year 2004 under 10th Five Year Plan. By this, centre has been able to realize one of its objectives by setting up a major communication network of universities and its successfully interlinked 149 universities through this consortium, which has been planned, implemented and monitored by the centre. During the last three years, effective implementation and execution of this programme has made it as one of the largest and successful consortium around the world. Under the programme, over 4500 high quality peer reviewed priced full text scholarly journals in Science & Technology, Social Science and Humanities are provided free of cost to 124 universities through UGC-Infonet infrastructure. Centre has developed a website of UGC-Infonet Digital Library Consortium. Users can get information about the UGC-Infonet Digital Library Consortium, e-resources, details of member universities, user help guides and usage statistics, etc.

5.4.3   E-Journal Accessibility to Universities of North East Region

Access to electronic resources requires good ICT infrastructure, availability of satisfactory number of PCs in network environment and good speed of INTERNET connectivity. If any of these is not available, these facilities remain unutilized. Other factor, which is also responsible for usage is awareness among users. Statistics reveal that most of the universities in the region are not making desired use of E-journals due to some or the other reasons. But despite the best efforts of INFLIBNET, universities in the region are yet to catch up with mainstream. Access to E-journals in the NE Region is given to five universities in the year 2004. These universities are NEHU, Tezpur University, Gauhati University, Manipur University and University of North Bengal. These universities were given more than 1700 full text journals from different publishers.

In 2005 INFLIBNET has extended the access of E-Journals to four more universities in NE Region. Hence Arunachal Pradesh University (now Rajiv Gandhi University, Itanagar), Assam University, Dibrugarh University, Nagaland University became part of the UGC-Infonet: E-Journal consortium. Keeping in view the demand from various places, resources from Taylor and Francis, Blackwell, Mathscienet, Portland press and Project Euclid have been subscribed under the consortium and access is given to all 124 universities. Here it may be mentioned that e-journals of Library and Information Science at Gauhati University has been stopped by the INFLIBNET because of non-use of journals by the users. When the e-journals were provided by the INFLIBNET, the university had dial-up Internet connection, which remains out of order most of the time. That is why the statistics showed zero. And now the university has leased line in the library, then the subscription of LIS journals are not available to the users of LIS. The director of INFLIBNET has announced during valedictory session of PLANNER- 2007 at Gauhati University that very soon the e-journals of library and information science will be made available to the users of Gauhati University.

6.   Conclusion

With globalization of education and competitive research the demand for the journals has increased over the years. Due to insufficient funds, libraries have been forced to discontinue the scholarly journals, which have great impact to the users. In order to, provide the current literature to academic world; UGC has initiated the UGC-Infonet Digital Library Consortium. Timely initiative of UGC is a big boon to academic circles in the country, which enables them to access large number of scholarly journals from reputed publishers, aggregators and society publications. Under this consortium, about 4500 full text scholarly electronic journals from different renowned publishers across the globe can be accessed. The consortium provides current as well as archival access to core and peer-reviewed journals in different disciplines. The whole programmes have been implemented in different phases. So far 124 Indian universities, which comes under the purview of UGC, have been provided access to these journals and it will gradually be extended to affiliated colleges as well. It covers almost all

areas of learning like Arts, Humanities, Social Sciences, Physical and Chemical Sciences, Life Sciences, Computer Sciences, Mathematics and Statistics etc. and other subject areas are to be added in near future. The programme is wholly funded by the UGC and monitored by INFLIBNET centre. The UGC-Infonet: E-journal Consortium was launched during the concluding day of UGC's Golden Jubilee celebrations by the former honourable President of India, Dr. A. P. J. Abdul Kalam at Vigyan Bhavan on 28th December 2003 by dedicating a bouquet of e-journals to the nation and since 2004 the INFLIBNET has initiated UGC Digital Library Consortium under 10th five year plan.

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